

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for obtaining a current value of a Management Information base (MIB) variable stored in a managed network device in a network packet router, the method comprising the steps of:
receiving a connection of a Web browser to a network packet router;
receiving at the network packet router an HTTP request message from the browser to obtain the current value of the MIB variable from the network packet router to which the MIB variable value pertains;
creating, at the network packet router, based on the HTTP request message, an SNMP query that requests the current value of the MIB variable;
communicating the SNMP query to an SNMP daemon of the network packet router;
receiving, from the SNMP daemon in response to communicating the SNMP query to the SNMP daemon, the current value of the MIB variable from the MIB of the network packet router to which the MIB variable value pertains; and
communicating the current value of the MIB variable from the network packet router to which the MIB variable value pertains to the browser using an HTTP reply message.
2. (Previously presented) The method of claim 1, further comprising the steps of:
creating and storing a MIB object tree in a memory of the network packet router;
creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;
communicating the electronic document to the Web browser.
3. (Previously presented) The method of claim 1, wherein the step of receiving the current value of the MIB variable from the MIB of the network packet router includes the steps of creating and storing a MIB object tree in a memory of the network packet router ; obtaining the MIB variable from the MIB object tree in the memory of the network packet router.

4. (Previously presented) The method of claim 1, further comprising the steps of:
creating and storing a MIB object tree in a memory of the network packet router;
creating an electronic document that contains a representation of one or more MIB
variables of the MIB object tree;
receiving a user selection of one of the MIB variables based on the electronic
document;
wherein the step of receiving the current value of the MIB variable from the MIB of
the network packet router includes the step of obtaining the MIB variable that
is identified in the user selection from the MIB object tree in the memory of
the network packet router.
5. (Previously presented) The method of claim 1, further comprising the steps of:
receiving the HTTP request message to obtain the current value of the MIB variable
at an HTTP-SNMP interface;
creating an SNMP query that requests a current value of the MIB variable based on
the HTTP request message; and
communicating the SNMP query to an SNMP daemon of the network packet router.
6. (Currently amended) The method of claim 1, further comprising the steps of:
communicating the current value of the MIB variable to ~~the~~an HTTP-SNMP
interface;
creating and storing an HTML page that contains the current value of the MIB
variable; and
sending the HTML page to an HTTP daemon of the network packet router.
7. (Original) The method of claim 1, further comprising the step of creating and storing
an executable software element in association with the Web browser, wherein the
executable software element is configured for packaging an SNMP query into the
request from the Web browser.

8. (Original) The method of claim 1, wherein the step of receiving a request from the Web browser to obtain the current value of the MIB variable includes the step of unpackaging an SNMP query that is packaged in the request from the Web browser to identify the MIB variable.
9. (Previously presented) The method of claim 8, further comprising the step of sending the SNMP query to an SNMP daemon of the network packet router.
10. (Original) The method of claim 8, wherein the step of returning the current value of the MIB variable to the Web browser includes the step of repackaging the current value of the MIB variable into an HTTP reply message.
11. (Currently amended) A network device, comprising:
 - a processor;
 - a Management Information Base (MIB) logically accessible by the processor and comprising one or more stored values of MIB variables;
 - a Simple Network Management Protocol (SNMP) daemon executed by the processor;
 - a Hypertext Transfer Protocol (HTTP) daemon executed by the processor;
 - stored instructions for obtaining a current value of a Management Information base (MIB) variable stored in a managed network device network packet router which, when executed by the processor, cause the processor to carry out the steps of:
 - receiving a connection of a Web browser to a the network packet router;
 - receiving at the network packet router an HTTP request message from the browser to obtain the current value of the MIB variable from the network packet router to which the MIB variable value pertains;
 - creating, at the network packet router, based on the HTTP request message, an SNMP query that requests the current value of the MIB variable;

communicating the SNMP query to an SNMP daemon of the network packet router;

receiving, from the SNMP daemon in response to communicating the SNMP query to the SNMP daemon, the current value of the MIB variable from the MIB of the network packet router to which the MIB variable value pertains; and

communicating the current value of the MIB variable from the network packet router to which the MIB variable value pertains to the browser using an HTTP reply message.

12. (Previously presented) The network device of claim 11, wherein the instructions further cause the processor to carry out the steps of:
creating and storing a MIB object tree in a memory of the network packet router;
creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;
communicating the electronic document to the Web browser.
13. (Previously presented) The network device of claim 11, wherein the step of receiving the current value of the MIB variable from the MIB of the network packet router includes the steps of creating and storing a MIB object tree in a memory of the network packet router ; obtaining the MIB variable from the MIB object tree in the memory of the network packet router .
14. (Previously presented) The network device of claim 11, wherein the instructions further cause the processor to carry out the steps of:
creating and storing a MIB object tree in a memory of the network packet router ;
creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;
receiving a user selection of one of the MIB variables based on the electronic document;

wherein the step of receiving the current value of the MIB variable from the MIB of the network packet router includes the step of obtaining the MIB variable that is identified in the user selection from the MIB object tree in the memory of the network packet router.

15. (Previously presented) The network device of claim 11, further comprising an HTTP-SNMP interface which, when executed by the processor, causes the processor to carry out the steps of:
receiving the HTTP request message to obtain the current value of the MIB variable at an HTTP-SNMP interface;
creating an SNMP query that requests a current value of the MIB variable based on the HTTP request message; and
communicating the SNMP query to an SNMP daemon of the network packet router.
16. (Currently amended) The network device of claim 11, further comprising the steps of:
communicating the current value of the MIB variable to ~~the~~ an HTTP-SNMP interface;
creating and storing an HTML page that contains the current value of the MIB variable; and
sending the HTML page to the HTTP daemon.
17. (Currently amended) A computer-readable storage medium ~~carrying~~ storing one or more sequences of one or more instructions for obtaining a current value of a Management Information base (MIB) variable stored in a managed network device in a network packet router, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:
receiving a connection of a Web browser to a network packet router;

receiving at the network packet router an HTTP request message from the browser to obtain the current value of the MIB variable from the network packet router to which the MIB variable value pertains;
creating, at the network packet router, based on the HTTP request message, an SNMP query that requests the current value of the MIB variable;
communicating the SNMP query to an SNMP daemon of the network packet router;
receiving, from the SNMP daemon in response to communicating the SNMP query to the SNMP daemon, the current value of the MIB variable from the MIB of the network packet router to which the MIB variable value pertains; and
communicating the current value of the MIB variable from the network packet router to which the MIB variable value pertains-to the browser using an HTTP reply message.

18. (Currently amended) The computer-readable storage medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:
creating and storing a MIB object tree;
creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;
communicating the electronic document to the Web browser.
19. (Currently amended) The computer-readable storage medium as recited in claim 17, wherein receiving the current value of the MIB variable from the MIB of the network packet router includes the steps of creating and storing a MIB object tree in a memory of the network packet router; obtaining the MIB variable from the MIB object tree in the memory of the network packet router.
20. (Currently amended) The computer-readable storage medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:
creating and storing a MIB object tree in a memory of the network packet router;

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;
receiving a user selection of one of the MIB variables based on the electronic document;
wherein receiving the current value of the MIB variable from the MIB of the network packet router includes the step of obtaining the MIB variable that is identified in the user selection from the MIB object tree in the memory of the network packet router.

21. (Currently amended) The computer-readable storage medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:
receiving the HTTP request message to obtain the current value of the MIB variable at an HTTP-SNMP interface;
creating an SNMP query that requests a current value of the MIB variable based on the HTTP request message; and
communicating the SNMP query to an SNMP daemon of the network packet router.
22. (Currently amended) The computer-readable storage medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:
communicating the current value of the MIB variable to ~~the~~ an HTTP-SNMP interface;
creating and storing an HTML page that contains the current value of the MIB variable; and
sending the HTML page to an HTTP daemon of the network packet router.
23. (Currently amended) An apparatus comprising:
one or more processors; and
a computer-readable storage medium storing a HTTP browser program including a plug-in executable software element configured for obtaining a current value of a Management Information Base (MIB) variable stored in a network packet router and

which, when executed by ~~a processor that executes the browser~~ the one or more processors, causes the ~~processor to carry out the steps of one or more processors to~~ perform:

connecting the browser to the network packet router;

translating an SNMP query to a HTTP request message;

communicating the HTTP request message from the browser to the network packet router to obtain the current value of the MIB variable from the network packet router to which the MIB variable value pertains;

wherein communicating the HTTP request message to the network packet router causes the network packet router to (a) create, based on the HTTP request message, an SNMP query that requests the current value of the MIB variable and (b) communicate the SNMP query to an SNMP daemon of the network packet router to obtain the current value of the MIB variable;

receiving, in an HTTP reply message, the current value of the MIB variable from the MIB of the network packet router to which the MIB variable value pertains;
and

displaying the current value of the MIB variable using the browser.

24. (Currently amended) An apparatus comprising:

one or more processors; and

a computer-readable storage medium storing an applet executable in a browser

program and configured for obtaining a current value of a Management Information Base (MIB) variable stored in a managed network device packet router in a network and which, when executed by the ~~browser~~ one or more processors, causes the ~~browser to carry out the steps of one or more processors~~ to perform:

connecting the browser to the network packet router;

translating an SNMP query to a HTTP request message;

communicating the HTTP request message from the browser to the network packet router to obtain the current value of the MIB variable from the network packet router to which the MIB variable value pertains;

wherein communicating the HTTP request message to the network packet router causes the network packet router to (a) create, based on the HTTP request message, an SNMP query that requests the current value of the MIB variable and (b) communicate the SNMP query to an SNMP daemon of the network packet router to obtain the current value of the MIB variable;

receiving, in an HTTP reply message, the current value of the MIB variable from the MIB of the network packet router to which the MIB variable value pertains; and

displaying the current value of the MIB variable using the browser.

25. (Previously presented) The network device of claim 11, wherein the step of receiving a request from the Web browser to obtain the current value of the MIB variable includes the step of unpackaging an SNMP query that is packaged in the request from the Web browser to identify the MIB variable.
26. (Previously presented) The network device of claim 25, wherein the instructions further cause the processor to carry out the step of sending the SNMP query to an SNMP daemon of the network packet router.
27. (Previously presented) The network device of claim 25, wherein the step of returning the current value of the MIB variable to the Web browser includes the step of repackaging the current value of the MIB variable into an HTTP reply message.
28. (Currently amended) The computer-readable storage medium of claim 17, wherein the step of receiving a request from the Web browser to obtain the current value of the MIB variable includes the step of unpackaging an SNMP query that is packaged in the request from the Web browser to identify the MIB variable.

29. (Currently amended) The computer-readable storage medium of claim 28, wherein the instructions further cause the processor to carry out the step of sending the SNMP query to an SNMP daemon of the network packet router.
30. (Currently amended) The computer-readable storage medium of claim 28, wherein the step of returning the current value of the MIB variable to the Web browser includes the step of repackaging the current value of the MIB variable into an HTTP reply message.
31. (Currently amended) A system for obtaining a current value of a Management Information base (MIB) variable stored in a managed network device in a network packet router, the system comprising:
means for receiving a connection of a Web browser to a network packet router;
means for receiving at the network packet router an HTTP request message from the browser to obtain the current value of the MIB variable from the network packet router to which the MIB variable value pertains;
means for creating, at the network packet router, based on the HTTP request message, an SNMP query that requests the current value of the MIB variable;
means for communicating the SNMP query to an SNMP daemon of the network packet router;
means for receiving, from the SNMP daemon in response to communicating the SNMP query to the SNMP daemon, the current value of the MIB variable from the MIB of the network packet router to which the MIB variable value pertains; and
means for communicating the current value of the MIB variable from the network packet router to which the MIB variable value pertains to the browser using an HTTP reply message.
32. (Previously presented) The system of claim 31, further comprising:

- means for creating and storing a MIB object tree in a memory of the network packet router;
- means for creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;
- means for communicating the electronic document to the Web browser.
33. (Previously presented) The system of claim 31, wherein the means for receiving the current value of the MIB variable from the MIB of the network packet router includes means for creating and storing a MIB object tree in a memory of the network packet router;
- means for obtaining the MIB variable from the MIB object tree in the memory of the network packet router.
34. (Previously presented) The system of claim 31, further comprising:
- means for creating and storing a MIB object tree in a memory of the network packet router;
- means for creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;
- means for receiving a user selection of one of the MIB variables based on the electronic document;
- wherein the means for receiving the current value of the MIB variable from the MIB of the network packet router includes means for obtaining the MIB variable that is identified in the user selection from the MIB object tree in the memory of the network packet router.
35. (Previously presented) The system of claim 31, further comprising:
- means for receiving the HTTP request message to obtain the current value of the MIB variable at an HTTP-SNMP interface;
- means for creating an SNMP query that requests a current value of the MIB variable based on the HTTP request message; and

- means for communicating the SNMP query to an SNMP daemon of the network packet router.
36. (Currently amended) The system of claim 31, further comprising:
means for communicating the current value of the MIB variable to ~~[[the]]~~ an HTTP-SNMP interface;
means for creating and storing an HTML page that contains the current value of the MIB variable; and
means for sending the HTML page to an HTTP daemon of the network packet router.
37. (Previously presented) The system of claim 31, further comprising:
means for creating and storing an executable software element in association with the Web browser, wherein the executable software element is configured for packaging an SNMP query into the request from the Web browser.
38. (Previously presented) The system of claim 31, wherein the means for receiving a request from the Web browser to obtain the current value of the MIB variable includes means for unpackaging an SNMP query that is packaged in the request from the Web browser to identify the MIB variable.
39. (Previously presented) The system of claim 38, further comprising means for sending the SNMP query to an SNMP daemon of the network packet router.
40. (Previously presented) The system of claim 38, wherein the means for returning the current value of the MIB variable to the Web browser includes means for repackaging the current value of the MIB variable into an HTTP reply message.
41. (Previously presented) The method of Claim 1, wherein the step of receiving a connection comprises receiving a connection to an HTTP daemon in the network

- packet router, and wherein the step of receiving an HTTP request message comprises receiving an HTTP request message at the HTTP daemon.
- 42 (Previously presented) The network device of Claim 11, wherein the instructions cause the processor to carry out the step of receiving a connection by receiving a connection to an HTTP daemon in the network packet router and the step of receiving an HTTP request message by receiving an HTTP request message at the HTTP daemon.
- 43 (Currently amended) The computer-readable storage medium of Claim 17, wherein the instructions cause the one or more processors to perform the step of receiving a connection by receiving a connection to an HTTP daemon in the network packet router and the step of receiving an HTTP request message by receiving an HTTP request message at the HTTP daemon.
- 44 (Previously presented) The system of Claim 31, wherein the means for receiving a connection comprises means for receiving a connection to an HTTP daemon in the network packet router, and wherein the means for receiving an HTTP request message comprises means for receiving an HTTP request message at the HTTP daemon.